
Installing PFTUs

Use the PFTU manufacturer's instructions and this procedure to install and connect A0355200 Power Fail Transfer Units. In AC-powered systems, PFTUs are powered by the A0367916 Auxiliary –48V Power Supply (up to six PFTUs can be supported by one power supply). In DC-powered systems, PFTUs are powered from an auxiliary –48 V dc fused output from the external power equipment.

[Figure 47](#) shows a high-level view of PFTU alarm connections. For PFTU operation, wiring from the following equipment cross-connects through termination areas at the MDF:

- PFTU
- auxiliary power supply
- system monitor
- attendant console (optional)
- designated telephones (DTMF or rotary dial types)
- central office trunks

Figure 47
MDF terminations for typical PFTU operation

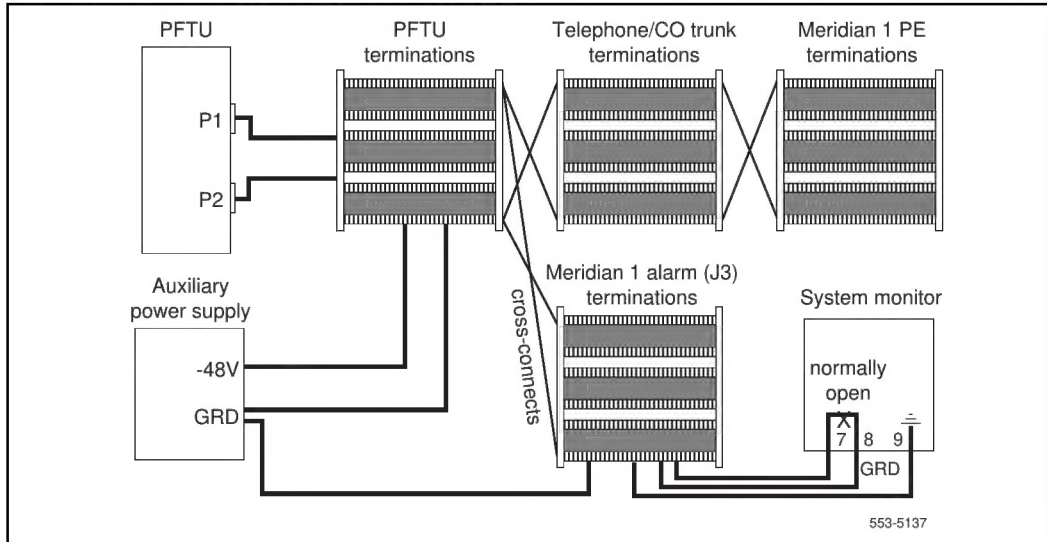
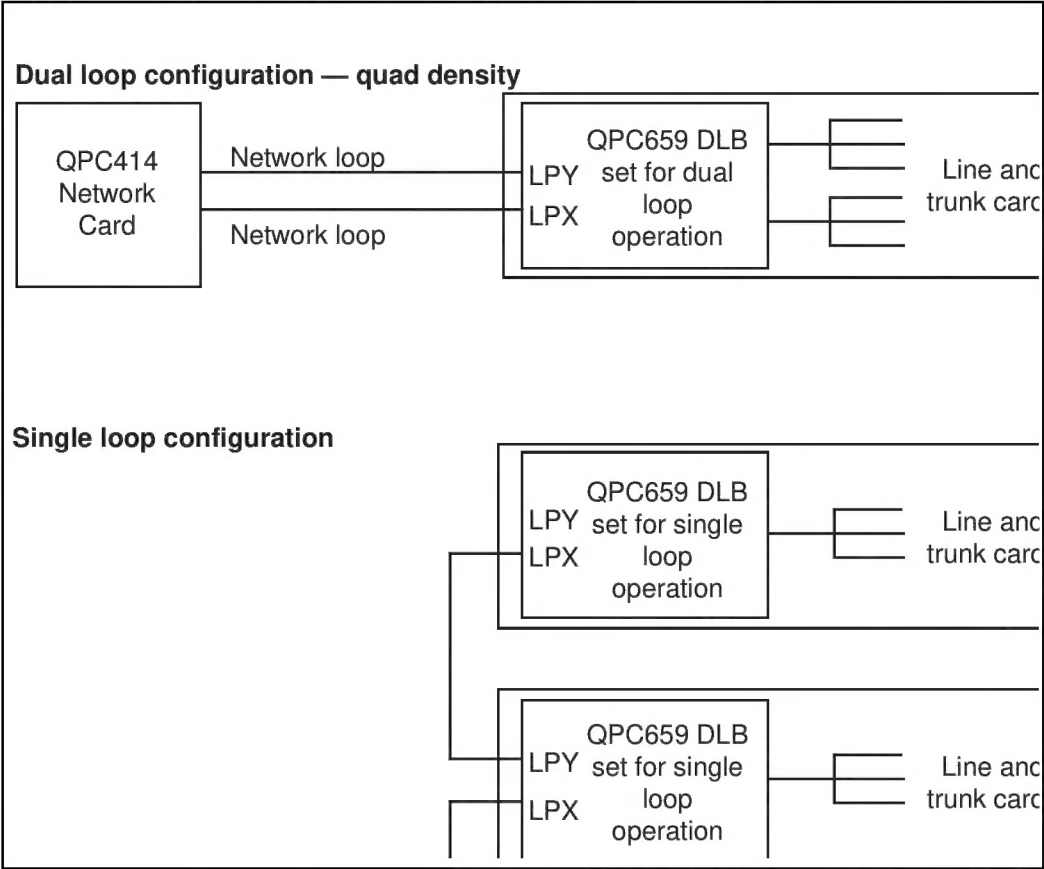


Figure 48 shows detail view of the PFTU alarm connections. The PFTU can be activated by system power failure and using the Attendant console TC switch. If more than one Attendant console is connected to the system, it must be connected in parallel with the main Attendant console as shown in the figure.

Figure 48
Typical PFTU connection to the MDF and the Master System Monitor



Installation procedure

- 1 Install PFTUs according to the manufacturer’s instructions.
- 2 Attach the yellow PFTU label to the BIX designation strip, indicating the top BIX connector as P1 and the bottom connector as P2.
- 3 Install two NE-A25B type 25-pair cables from connectors P1 and P2 on the front of the PFTU to the PFTU termination area at the MDF.
- 4 Cross-connect wiring for PFTU operation as shown in [Table 4](#).

Table 4
MDF cross-connections for PFTU operations

Description	Connection
–48 V dc + return (GND)	PFTU connector P1, pin 49 PFTU connector P2, pin 49 and MDF GND
All grounds on system monitor cable	MDF GND
Console cable pin 11 Console cable pin 36	PFTU connector P1, pin 25 MDF GND
LFBEN (line forced bypass enable) LFBENR (line forced bypass enable return)	PFTU connector P1, pin 50 MDF GND
MDF GND	PFTU connector P2, pin 24
Note: At connector P1 on the PFTU, pins 25 and 50 are labeled SWE for “switch enable.” When pin 25 is grounded by the attendant console or pin 50 is grounded by the system monitor, line transfer is activated.	

- 5** For AC-powered systems, install the A0367916 auxiliary power supply:
 - Attach the unit to the wall using screws in the four mounting holes.
 - Connect a #24 (or larger) AWG wire from the –48 V connection on the auxiliary power supply to the PFTU termination area on the MDF.
 - Connect a #24 (or larger) AWG wire from the ground (GND) connection on the auxiliary power supply to the PFTU termination area on the MDF.
 - Connect a second #24 (or larger) AWG wire from the GND connection on the auxiliary power supply to the Meridian 1 alarm termination area on the MDF.
 - Plug in the A0367916 auxiliary power supply:

If a UPS is used, you must plug the power supply into an auxiliary output on the UPS.

Without a UPS, plug the power supply into an outlet in the equipment room.
- 6** For DC-powered systems, power the PFTU from the fused low-current auxiliary power outputs on the DC power system. One 1.33-amp fuse supports up to six PFTUs.

Connecting trunks and telephones

The “ground start” feature on 500/2500-type telephones connected to CO trunks requiring a ground start condition is not required. Automatic ground start is performed by the PFTU. However, rotary dials (dial pulse) are required on telephones assigned to trunks that are not equipped to recognize tone pulses (touch tone).

See the PFTU documentation for MDF cable terminations for telephones and trunks associated with the PFTU. If the connections are not designated on the connecting blocks, mark the blocks as shown in the documentation or install the appropriate designation strips.

- 1** For each telephone assigned to the PFTU:
 - Connect the tip and ring of the line card to the first pair of the assigned PFTU.
 - Connect the tip and ring of the telephone to the second pair of the assigned PFTU.
- 2** For each trunk assigned to the PFTU:
 - Connect the tip and ring of the CO card to the third pair of the assigned PFTU.
 - Connect the tip and ring of the trunk to the fourth pair of the assigned PFTU.

Installing QUA6 PFTUs (UK installations)

QUA6 PFTUs are used in United Kingdom Meridian 1 installations. The QUA6 PFTU is powered from an auxiliary –48V dc fused output from the external power equipment.

Figure 47 shows a high-level view of QUA6 PFTU alarm connections. For PFTU operation, wiring from the following equipment cross-connects through termination areas at the MDF:

- PFTU
- auxiliary –48 V dc
- system monitor
- attendant console (optional)
- designated telephones
- Central Office trunks